

The Hong Kong University of Science and Technology

UG Course Syllabus

Course Title: Computer Graphics

Course Code: COMP4411

No. of Credits: 3-credit

[Any pre-/co-requisites]: *COMP 3711 OR COMP 3711H*

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Course Description

Display technologies; scan conversion; clipping; affine transformations; homogeneous coordinates and projection; viewing transformations; hidden surface removal; reflectance and shading models; ray tracing; spline curves and surfaces; hierarchical modeling; texture mapping; color models.

Assessments:

Assessment Task	Contribution to Overall Course grade (%)
4 Computer Projects	60%
Homeworks	1%
Final Exam	39%
Total	100%

Required Texts and Materials

Recommended text

Foley, van Dam, Feiner, Hughes. Computer Graphics Principles and Practice, Third Edition in C. Addison Wesley, 1996.

[Optional] Additional Resources

Supplemental texts

Hearn, Baker. Computer Graphics: C Version Second Edition. Prentice Hall, 1997.
Alan Watt, 3D Computer Graphics, Third Edition, Addison-Wesley, 2000.
Woo, Neider, Davis, and Schreiner. OpenGL Programming Guide, Third Edition. Addison-Wesley, 1999.
Andrew S. Glassner. An Introduction to Ray Tracing. Academic Press, 1989.
Edward Angel, Interactive Computer Graphics: A top-down approach with OpenGL, Second Edition. Addison Wesley, 2000.